

REMARKS/ARGUMENTS

Amendments are made to the specification to correct clearly typographical errors, to include reference numbers shown in the figures, and to correctly denote trademarked names. No new matter is added by any of the amendments to the specification.

Claims 1-9, 12-16, and 18-20 are pending in the present application. Claims 10, 11, and 17 canceled and claims 1-4, 7-9, 12-14, and 18 are amended. Reconsideration of the claims is respectfully requested.

I. Objection to the Drawings

The Examiner objected to the drawings for failing to include reference numbers referred to in the specification. In particular, items **105** and **106** in Figure 1, item **341** in Figure 3A and item **365** in Figure 3B are not mentioned in the description.

Applicants have amended page 3, line 26 and on page 4, line 6 to insert proper reference to items **105** and **106** illustrated in Figure 1. With respect to item **341**, this item is already mentioned on page 6, line 10. With respect to item **365** in Figure 3B, the specification has been amended on page 6, line 21 to properly reference the item. No new matter has been added by any of the amendments.

The Examiner also objected to the drawings for failing to include all reference numbers mentioned in the specification. In particular, the Examiner notes that reference number **103** referred to throughout the specification is not included in the drawings

Applicants have amended the specification where necessary to change reference number “**103**” to reference number “**202**.” The specification already refers to the client by reference number **202**, for example, on page 5, line 21, and the present Amendment corrects the inadvertent error of sometimes referring to the client by reference number **103**.

In view of the above amendments to the specification, the drawings are believed to be accurate in their present form. Thus, the drawings do not require amendments in their present form. Accordingly, the objections to the drawings have been overcome.

II. Objection to the Specification

The Examiner objected to the specification for improperly using the trademark “**BLUETOOTH®**.” Applicants have amended the specification to ensure that the trademark is always capitalized and designated by a registered trademark signal. The trademarked term is now also accompanied by appropriate generic terminology. Therefore, the objection to the specification has been overcome.

III. Objection to Claims

The examiner objected to claim 11. Applicants canceled claim 11, thereby rendering the objection moot.

IV. 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 3, 4, 9, 13, 14, 16 and 18 under 35 U.S.C. § 112, second paragraph, as indefinite. The examiner rejected claims 4, 9, 14, and 18 for the cited lack of antecedent basis. Applicants have amended these claims accordingly, thereby overcoming the rejection with respect to claims 4, 9, 14, and 18.

The examiner rejected claim 3, 11, and 16 as containing trademarks. Applicants have amended or canceled these claims accordingly, thereby overcoming the rejection with respect to claims 3, 11, and 16. Therefore the rejection of claims 3, 4, 9, 13, 14, 16 and 18 under 35 U.S.C. § 112, second paragraph has been overcome.

V. 35 U.S.C. § 103, Asserted Obviousness

The Examiner rejected claims 1-20 under 35 U.S.C. § 103 (a) as obvious over Inoue et al., Mobile Computing Scheme Using Encryption and Authentication Processing Based on Mobile Computer Location and Network Operating Policy, U.S. Patent 6,167,513 (December 26, 2000) (hereinafter “Inoue”) in view of Vij et al., Bridging Apparatus for Interconnecting a Wireless PAN and a Wireless LAN, U.S. Patent 6,452,910 (September 17, 2002) (hereinafter “Vij”). This rejection is moot with respect to claims 10, 11, and 17, as these claims have been canceled. With respect to the remaining claims this rejection is respectfully traversed. In rejecting the claims, the Examiner states:

As per claims 1, 8, and 15, Inoue teaches a data processing configuration, a method, and a bridge suitable for use in a data processing network, comprising:

a data processing system (Figures 3 [blocks 5a, 5b], 6 [blocks 2, 5a], 13 [blocks 23], 22 [blocks 2, 5a], 25 [blocks 2, 3 5a], 43 [blocks 2-1,5a], column 20, lines 35-44, i.e. stationary or mobile node);

a network communication device of the data processing system enabling the system to communicate with a network, wherein the communication device provides a port suitable for receiving a network cable connector (Figures 3 [blocks 1 a, 1 b], 6 [blocks 1a, 1b], 13 [blocks 1], 22 [blocks 1a, 1b], 25 [blocks 1a, 1b], i.e. the stationary or mobile computers connected to the gateways as illustrated);

a first bridge device having a connector suitable for insertion in the port (Figures 6 [block 4a], 13 [block 4, GWa], 22 [block 4a], 25 [block 4a], 43 [block 4a]),

wherein the bridge device is configured to encrypt information received from the system according to a predetermined encryption algorithm and to transmit the information (Figures 6, 13, 22, 25, 43, column 20, lines 35-44, i.e. GWa converts it into the encryption/end-to-end authentication format, encryption link format from GW0 (or GWa) to GW1 (or GWb)); and

a second bridge device having a connector suitable for insertion into a network port (Figures 6 [block 4b], 13 [block 4, GWb], 22 [block 4b], 25 [block 4b], 43 [block 4b]), wherein the second bridge device is configured to receive information and to decrypt received information according to a decryption algorithm that is matched to the encryption algorithm of the first bridge device (Figures 6, 13, 22, 25, 43, column 20, lines 35-44, i.e. GWb converts the received encryption authentication format to IP format) wherein the first and second bridge devices communicate with each other exclusively (column 13, lines 27-32, i.e. master key shared between the packet encryption gateways).

Inoue does not teach where the bridges communicate wirelessly.

Vij teaches wirelessly connecting a personal area network and a local area network (column 1, lines 7-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the bridges communicate wirelessly, since Vij states at column 2, lines 34-38 that using wireless bridges allows for the seamless integration of wireless network links while still being flexible to adapt to different wireless technologies (column 1, lines 66-67).

Office Action dated January 9, 2006, pages 5-6.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). To establish a *prima facie* case of obviousness, there must be an apparent reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings in the fashion claimed by the application at issue. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). Additionally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

In the case at hand, the proposed combination of references does not teach all of the features of claim 1 as amended. Amended claim 1 is as follows:

1. A data processing configuration, comprising:
a data processing system;
a network communication device of the data processing system for enabling the data processing system to communicate with a wired network, the network communication device including a wired port for receiving a cable connector;

a first wireless bridge device having a cable connector for insertion in the wired port of the network communication device, wherein the first wireless bridge device further includes an encryption unit for encrypting information received from the data processing system according to a predetermined encryption algorithm and a transmitter for transmitting the encrypted information wirelessly; and

a second wireless bridge device having a cable connector for insertion into a port of the wired network, wherein the second wireless bridge device includes a receiver for receiving encrypted information transmitted wirelessly from the first wireless bridge device, and a decryption unit for decrypting the received encrypted information according to a decryption algorithm that is matched to the encryption algorithm of the first wireless bridge device, *wherein the first and second wireless bridge devices communicate exclusively with each other in a wireless manner.*

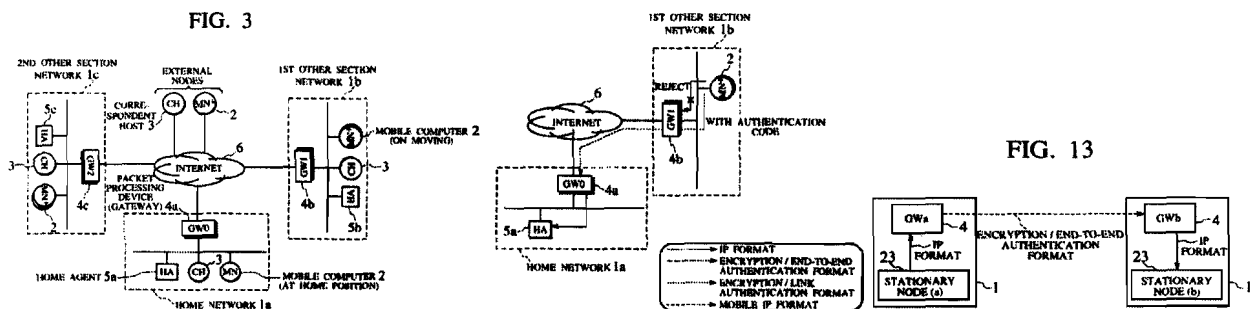
V.A. The Proposed Combination Does Not Teach All of the Features of Claim 1

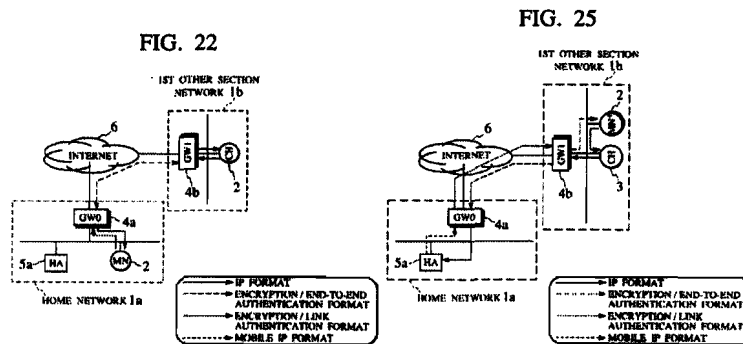
The combination of Inoue and Vij, considered as a whole, does not teach or suggest three features of claim 1 as amended. Particularly, the proposed combination does not teach the feature of, “a first wireless bridge device having a cable connector for insertion in the wired port of the network communication device,” the feature of, “a second wireless bridge device having a cable connector for insertion into a port of the wired network,” and the feature of, “wherein the first and second wireless bridge devices communicate exclusively with each other.” Therefore, under the standards of *In re Royka*, no prima facie obviousness rejection can be made against claim 1 as amended.

Applicants first address the feature of, “a first wireless bridge device having a cable connector for insertion in the wired port of the network communication device,” as in claim 1. With respect to a similar feature, the examiner states that Inoue teaches:

wherein the communication device provides a port suitable for receiving a network cable connector (Figures 3 [blocks 1 a, 1 b], 6 [blocks 1a, 1b], 13 [blocks 1], 22 [blocks 1a, 1b], 25 [blocks 1a, 1b], i.e. the stationary or mobile computers connected to the gateways as illustrated)

Office Action dated January 9, 2006, page 5. The cited figures are as follows:





As immediately seen by reference to these figures, nothing in Inoue teaches or suggests that the first wireless bridge device has a **cable connector** for insertion in the **wired port of the network communication device**,” as required by claim 1. Instead, these figures teach communication between a mobile computer and a network computer via wireless communications. Inoue does not disclose how the cable connectors are connected to the network communication device. Inoue does not disclose wired ports or cable connectors. Neither Inoue nor the art in general suggests this claimed feature because the art is concerned with wireless communications, not with wireless communications in conjunction with wired communications.

Furthermore, Vij also does not teach this claimed feature. Instead, Vij teaches a wireless bridge conjoins two previously incompatible technologies within a single device. Because Vij is devoid of disclosure in this regard, Vij also does not suggest this claimed feature.

Because Inoue and Vij do not teach or suggest this claimed feature, the proposed combination considered as a whole also does not teach or suggest this claimed feature. Therefore, no prima facie obviousness rejection can be stated against claim 1 as amended using these references.

Additionally, the proposed combination, considered as a whole, also does not teach the claimed feature of, “a second wireless bridge device having a **cable connector** for insertion into **a port of the wired network**,” as in claim 1. The examiner cites the same figures for similar features in the originally filed form of claim 1. However, again, Inoue does not teach or suggest wired ports or cable connectors, either with respect to the ports of the claimed network communication device or the claimed wired network. Furthermore, considered together, Inoue does not teach the **combination** of these two features in the same claim.

Furthermore, Vij also does not teach this claimed feature or the combination of these claimed features in the same claim. Instead, Vij teaches a wireless bridge conjoins two previously incompatible technologies within a single device. Because Vij is devoid of disclosure in this regard, Vij also does not suggest this claimed feature.

Because Inoue and Vij do not teach or suggest this claimed feature, the proposed combination considered as a whole also does not teach or suggest this claimed feature. Therefore, no prima facie obviousness rejection can be stated against claim 1 as amended using these references.

Finally, the proposed combination considered as a whole does not teach or suggest the feature of, “*wherein the first and second wireless bridge devices communicate exclusively with each other*,” as in claim 1. The examiner asserts otherwise, stating that the “master key shared between the packet encryption gateways” teaches this feature, as specifically provided in the following portion of Inoue:

The master key to be shared between two data packet encryption gateways or between the data packet encryption gateway and the mobile computer can be generated by the exchange of a secret key or the derivation using a public key and a secret key (such as the Diffie-Hellman method), for example.

Inoue, col. 13, ll. 27-32.

This portion of Inoue teaches that a master key can be generated by the exchange of a secret key or the derivation using a public key and a secret key. However, this teaching of Inoue is irrelevant to whether the first and second wireless bridge devices communicate exclusively with each other. For example, Inoue teaches that the master key can be communicated from the mobile computer to some other network computer. In fact, this feature is the entire point of Inoue’s disclosure – which is to provide a manner for a mobile computer to securely transmit information to *more than one* wired network. Because the master key can be communicated between multiple computers in multiple wired networks, any identified “first” and “second” bridges in Inoue do not communicate with each other *exclusively*.

Furthermore, causing bridges to communicate with each other *exclusively*, as claimed, would defeat the entire purpose of Inoue’s system. Therefore Inoue not only fails to teach this feature of claim 1, but also Inoue actually *teaches away* from the invention of claim 1.

Vij is devoid of disclosure regarding this claimed feature. As shown above, Vij only discloses a *single* device for facilitating communication among disparate wireless protocols.

Because Inoue and Vij do not teach or suggest this claimed feature, the proposed combination considered as a whole also does not teach or suggest this claimed feature. Therefore, no prima facie obviousness rejection can be stated against claim 1 as amended using these references.

V.B. No Apparent Reason Exists To Combine the References Because the Reference Individually and Together Teach Away from Claim 1

Additionally, no prima facie obviousness rejection can be formed under the newly announced standards of *KSR Int’l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007) because no *apparent* reason exists to combine the references to achieve the invention of claim 1. No apparent reason exists to

combine the references because the references individually and together teach away from the invention of claim 1.

As shown above, causing bridges to communicate with each other *exclusively*, as claimed, would defeat the entire purpose of Inoue's system. Inoue specifically provides that:

A mobile computing scheme capable of carrying out a proper packet transfer according to a current location of the mobile computer by accounting for the network operating policy. A mobile computer carries out a prescribed communication processing according to recognition results as to whether the mobile computer is located inside or outside the home network at which a mobile computer management device of the mobile computer is provided, and whether or not there exists a packet processing device which has a packet transmitted by at least one of the mobile computer and a correspondent computer as an encryption and authentication processing target. Also, a packet processing device carries out a prescribed transfer processing according to recognition results as to whether at least one of a source computer and a destination computer of a packet to be transferred is a moving mobile computer which is moving outside its home network, and whether or not there exists a packet processing device which has a packet transmitted by at least one of the source computer and the destination computer as an encryption and authentication processing target.

Inoue, Abstract.

Thus, Inoue teaches a method for processing encrypted packets when a mobile computer moves outside the mobile computer's home network. Thus, the communication bridge in the mobile computer *does not* communicate with a wired network *exclusively*, as claimed. If such communication were exclusive, then one would not be able to communicate between any network except for the home network. One of ordinary skill would be strongly motivated to avoid this outcome; accordingly, Inoue teaches away from claim 1. For this reason, no apparent reason exists to combine or modify the references to achieve the invention of claim 1, much less a non-apparent reason. Therefore, under the standards of *KSR Int'l. Co. v. Teleflex, Inc.*, claim 1 is non-obvious in view of the combination of Inoue and Vij.

Additionally, Vij teaches away from the invention of claim 1. Vij provides that:

A Wireless bridge conjoins two previously incompatible technologies within a single device to leverage the strengths of each. The Wireless bridge marries the Personal Area Network (PAN) technology of Bluetooth as described in Bluetooth Specification Version 1.0B with the Wireless Local Area Network (WLAN) technology described in the IEEE802.11 specification to provide a wireless system level solution for peripheral devices to provide Internet service interactions. The invention brings together in a single working device implementations of these technologies so they do not interfere or disrupt the operation of each other and instead provide a seamless transition of a Bluetooth connection to Wireless Local Area Network/Internet connection. From the Wireless Local Area Network perspective the inventive wireless bridge extension allows a Bluetooth-enabled device to roam from one Wireless Access Point (bridge) to the next without losing its back end connection. The invention takes

into account the minimum separation and shielding required of these potentially conflicting technologies to inter-operate.

Vij, Abstract.

Thus, Vij provides for a system to allow a single wireless bridge to communicate with multiple, initially incompatible technologies. No *apparent* reason exists to create *exclusive* communication between two wireless ports, as claimed, because the entire point of Vij's system is to facilitate communication between multiple technologies. For example, Figure 5 of Vij shows multiple slaved BLUETOOTH® connections between a WLAN server:

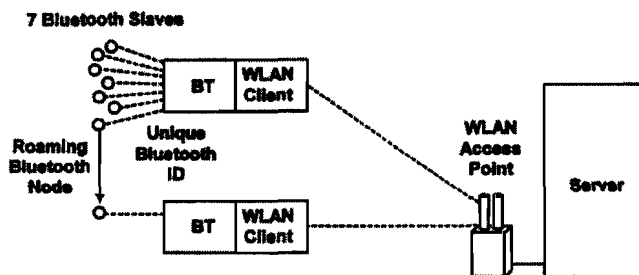


Fig. 5

Nevertheless, Vij does state that:

The Wireless Bridge always acts as a master. It will try to establish connection with Bluetooth-enabled vehicles or handheld devices. Prior to connection establishment, the bridge will be in Inquiry Mode and the Bluetooth Module in the vehicle or handheld will be in Inquiry Scan Mode. The Inquiry phase will be followed by Paging and Connection phases as defined in the Bluetooth Specification Version 1.0B. The Internet-connected server will try to close inactive Bluetooth connections to minimize the number of Bluetooth connections, since the maximum number of active Bluetooth connections in a piconet is seven. The Bridge will therefore respond to control command from the server. *It will establish an exclusive port to the server for this purpose.*

Vij, col. 8, ll. 6-18 (emphasis added).

Vij does teach that the *wireless bridge* will establish an exclusive port to the server. However, the *server* does not have exclusive communication with the wireless bridge, as required by claim 1. Again, claim 1 provides that, "the first and second wireless bridge devices communicate exclusively *with each other.*" Therefore, because Vij teaches non-exclusive communication between the *server* and other wireless bridges, Vij also teaches away from this feature claim 1.

Because both Inoue and Vij teach away from claim 1, the proposed combination of Inoue and Vij, considered as a whole, also teaches away from claim 1. Accordingly, no apparent reason exists to combine the references under the standards of *KSR Int'l. Co. v. Teleflex, Inc.* Therefore, no prima facie obviousness rejection can be stated against claim 1 as amended using these references.

V.C. Remaining Claims

Claims 2-9, 12-16, and 18-20 all either depend from claim 1 or contain features similar to those argued above with respect to claim 1. Therefore, no prima facie obviousness rejection can be stated against these claims using the cited references for the reasons presented above vis-à-vis claim 1. Additionally, the dependent claims also contain features not taught or suggested by either Inoue or Vij. For example, the proposed combination considered as a whole does not teach or suggest the claimed features of, "wherein the first and second wireless bridge devices each include an internal power supply for supplying power to the first and second wireless bridge devices respectively," as in amended claim 3. Therefore, the rejection with respect to claims 1-9, 12-16, and 18-20 has been overcome.

VI. Conclusion

The subject application is patentable over the cited references and should now be in condition for allowance. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: May 9, 2007

Respectfully submitted,

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